

## WATER MANAGEMENT DIVISION MONTHLY REPORT

## **Information Exchange Bulletin**

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## RESERVOIR OPERATION AND SYSTEM STATUS FOR MARCH 1999

**HIGHLIGHTS** –The stage at Cairo varied within a range of 25.4-41.3 feet, ending the month near the low of 25.4 feet. The Ohio River crested at Cairo on the 16<sup>th</sup> at 41.34 feet. Normal stage for March is 35 feet.

**WEATHER** – The weather during March was cold and dry. Temperatures averaged well below normal as northwesterly winds aloft prevailed for much of the month. Precipitation was much below normal for most of the basin. Many areas received less than half their expected normal precipitation. Driest areas were Illinois, Indiana, Ohio, Virginia, and Tennessee. Parts of Maryland, West Virginia, and southern Pennsylvania did manage to receive slightly above normal precipitation.

The following table summarizes temperature and precipitation for March:

## **TEMPERATURE AND PRECIPITATION – MARCH 1999**

	TEMPERATURE		PRECIPITATION	
STATION	OBSERVED DEGREES F	DEPARTURE FROM NORMAL	OBSERVED INCHES	DEPARTURE FROM NORMAL
Pittsburgh, PA	35.1	-4.3	1.24	-2.17
Charleston, WV	40.1	-5.8	3.70	+0.07
Columbus, OH	37.4	-3.5	1.88	-1.39
Cincinnati, OH	38.2	-4.8	1.89	-2.35
Louisville, KY	43.0	-3.3	3.41	-1.25
Indianapolis, IN	38.4	-3.0	1.71	-2.08
Evansville, IN	41.5	-4.3	4.30	-0.25
Nashville, TN	45.8	-4.0	4.27	-0.58

**STREAMFLOW** -- Ohio River monthly average flows for March ranged from a low of 77 percent of normal at Pittsburgh, PA to a high of 90 percent of normal at Paducah, KY. Daily flows ranged from a low of 34 percent of normal at Pittsburgh, PA to a high of 140 percent of normal at Huntington, WV.

The following table presents the flow data summary for March at the Ohio River Index Stations:

FLOW DATA – MARCH 1999

STATION	AVERAGE MONTHLY FLOW	PERCENT LONG-TERM NORMAL		TERM
	CUBIC FEET/SECOND	MONTHLY	DAILY	
	·		HIGH	LOW
Pittsburgh, PA	52,898	77	133	34
Huntington, WV	142,350	86	140	43
Cincinnati, OH	180,260	85	129	35
Louisville, KY	210,840	84	128	38
Evansville, IN	241,580	81	116	38
Paducah, KY	466,420	90	119	39

**RESERVOIRS** -- March started with 4.0% utilization of the total system flood control storage, reached a high of 4.7% on the 7th, and ended the month at 2.9%. System-wide augmentation storage increased from 82.9% at the beginning of the month to 94.3% by the end of the month. Significant flood storage utilization in excess of 25% occurred at two reservoir projects during March:

Hardin	27%	Cagles Mill	33%
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The following table depicts storage change by tributary reservoir subsystem for March:

CHANGE IN STORAGE TRIBUTARY-RESERVOIR SUBSYSTEM	(ACRE-FEET)
Allegheny-Monongahela-Beaver	+266,900
Muskingum-Little Kanawha-Hocking-Kanawha-Guyandotte	+67,300
Twelvepole-Big Sandy-Little Sandy-Scioto	+7,200
Little Miami-Licking-Mill Creek-Great Miami	-16,500
Kentucky-Salt-Green-Wabash	-123,700
Cumberland	+849,400
TOTAL	+1,050,600

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